Privacy and Security Standards Workgroup
Draft Transcript
May 9, 2011

Presentation

Judy Sparrow – Office of the National Coordinator – Executive Director
Good morning, everybody and welcome to the Privacy and Security Standards Workgroup call. This is a Federal Advisory Committee, so there will be opportunity at the end of the call for the public to make comment; and a reminder to workgroup members to please identify yourselves when speaking. A quick roll call: Dixie Baker?

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Here.

Judy Sparrow – Office of the National Coordinator – Executive Director
Walter Suarez?

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Here.

Judy Sparrow – Office of the National Coordinator – Executive Director
Anne Castro?

Anne Castro – Blue Cross Blue Shield South Carolina – Chief Design Architect
Here.

Judy Sparrow – Office of the National Coordinator – Executive Director
Steve Findlay? David McCallie?

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Here.

Judy Sparrow – Office of the National Coordinator – Executive Director
Wes Rishel, I think he's on holiday. Sharon Terry?

Sharon Terry – Genetic Alliance – President & CEO
Here.

Judy Sparrow – Office of the National Coordinator – Executive Director
Jeff Jonas? Chris Vien? Lisa Gallagher?

Lisa Gallagher – HIMSS – Senior Direct of Privacy & Security
Here.

Judy Sparrow – Office of the National Coordinator – Executive Director
Verne Rinker?

Verne Rinker – HHS/OCR – Health Information Privacy Specialist
Here.

Judy Sparrow – Office of the National Coordinator – Executive Director
Jodi Daniel? Avinash?

Avinash Shanbhag – ONC – Director, NwHIN
Here.

Judy Sparrow – Office of the National Coordinator – Executive Director
Deborah Lasky?

Deborah Lasky – ONC
Here.

Judy Sparrow – Office of the National Coordinator – Executive Director
Mike Davis? John Moehrke?

John Moehrke – Interoperability & Security, GE – Principal Engineer
Here.

Judy Sparrow – Office of the National Coordinator – Executive Director
Ed Larsen? Kevin Stine? John Blair? Did I leave anyone off? All right, with that I'll turn it over to Dixie Baker and Walter Suarez.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Thank you, Judy, and thank you all for dialing in. We're continuing our discussion today of provider directories. You'll recall that the Policy Committee asked us to recommend standards in the area of enterprise level provider directories, and we also, at our last meeting, reviewed a draft presentation by the Information Exchange Workgroup of the Policy Committee on individual level provider directories. The ONC has named as a priority to get recommendations from us on standards implementation specifications and certification criteria around EHRs for the next stage two meaningful use certification requirements for EHRs.

We have agreed to provide our recommendation on EHR query of an enterprise level provider directory by the next Standards Committee meeting, which is next week. So at today's meeting we would like to begin by really honing in on our recommendations for EHR query of an enterprise level provider directory, and after that we've also been asked by the Information Exchange Workgroup of the Policy Committee to give them some feedback on ILPD materials. Our top priority today is to come up with a consensus of recommendations around EHR query of enterprise level provider directories.

With that I'd like to turn this over to Walter.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Thanks, Dixie. What we wanted to also do at this beginning part was to spend about five minutes or so going back to where the Policy Committee started and how it came down to the recommendations they provided on entity level provider directories. And really again refine our focus to this specific task of identifying the standard for the queries that EHRs would send to provider directories and the response they would get.

Just to get back a little bit into how these all got started, the Policy Committee Information Exchange Workgroup was tasked to do this, to look at provider directory. We started back in July of last year looking at this at a very high level without any specific focus initially to discuss just generally all the different concepts that existed. We talked about the existence of course of white pages and yellow pages directories out there, the existence of services that were more human oriented, if you will, or human interface services that allow individuals. Whether it's a provider looking for another provider or a patient looking for a provider, to review and select and identify a particular provider, whether it was an entity type provider, a clinic, a hospital or lab, or whether it was an individual specialist or a particular primary care provider. We distinguished those human type level directories from the electronic directories that are used to primarily really allow the routing, if you will, the routing of messages, the support of the information exchange between two entities, and that are in the most basic level automated electronic

system based routing type directories. So we distinguished the two and we said we're not going to mix them or have them be all part of the same kind of concept, even though in the background they might come from the same sources.

We also then started to look at this from the need to focus on the second part, the need to focus on directories that are able to support electronic exchange of documents and information from point A to point B, and we had to of course make some assumptions along the way. We didn't necessarily look at this with a particular specific architecture approach, but we had to make some basic assumptions around what was known and what was not known in terms of using these routing type directories. We did not really focus on the human level directories, the white page and the yellow page type directories, but again decided to really prioritize our tasks on directory that would support the routing, the exchange of information in an automated way.

Some of the basic concepts that we used—and again we built a series of use cases to help us think through the different elements that were involved in the exchanges of information between two entities and be able to extract the essence of the primary reason why these electronic entity level provider directories would be needed. We convened, as I mentioned, I think at the last meeting of our Information Exchange Workgroup convened a hearing back in September, a full day hearing, where we heard from different organizations, providers, payers, HIEs, vendors, about their different approaches and where they thought we needed to really focus on. That's where the priority came from really to focus on these routing directories, focus on initially the entity level type directories, and then later on the individual provider directories. Because in reality, as they were explaining it, the HIE environment, whether it's a state HIE, a regional HIE, or a local HIE, the HIEs are looking for and in fact building these types of directories and creating these types of directories to support the exchange within the HIE of information from different nodes. The nodes that are separate and organizationally and are independent organizations, so the HIEs themselves were facing this dilemma of how to structure, how to build, how to create this type of directory that would support inside HIE the exchange of electronic information between two nodes in the HIE. That's how the priority was set to focus on entity level provider directory.

The other part of the discussion and an assumption almost that was made was the fact that for the most part entities would send a message to another entity, to a location of that entity, if you will, to the electronic address of the entity. But that there would be eternally a lot of workflows and a lot of processes to distribute that message to the right location, to the right individual, to the content of that information being parsed out into the right record, those kinds of things. So when an entity receives a discharge summary, for example, from a hospital, that entity that receives that, the discharge summary will have the identification of the individual, the patient that was discharged, and would have the information about providers in that entity that is receiving the message. But it might not be specifically sent to the individual inside the entity receiving the message. But it would be sent to the entity so that the entity will then take that message and open its contents and parse out, locate the right patient record, incorporate the data that came in the discharge summary into that electronic health record of that patient. Then internally communicate to the primary care provider, for example, that new information about the patient is available for the primary care provider to see.

So the internal workflows and distribution and allocation and parsing of the content of the message was not the scope, the scope was really to allow the entities to route appropriately and securely the content, the payload, the message content. And in that sense the Policy Committee recommendations were then to establish basically at the minimal functional capabilities of this entity level provider directories to allow one entity to discover the other entity, if you will, so identify the receiving entity, identify the security credentials of that receiving entity, and the information exchange type of capabilities of that receiving entity so that the submitting entity and the one that is sending the message will be able to, again securely, conduct that exchange and send a message in a secure way to the right recipient. Then the recipient will take that message again internally and do whatever they need to do with it. So that's what limited, really, the scope on the focus of the entity level provider directory to try to minimize the expectations on it.

We also in that Information Exchange Workgroup recommendations looked at two other very important aspects of this. One was that we realized that the fact is that there are a lot of provider directories out

there already in existence and every entity pretty much maintains a provider directory, whether they call it that way or some other way, but pretty much any entity that has a list of providers in it and a list of other entities in it has that type of record. So the first aspect of this was not to do a rip and replace or completely forget about the existing directories, but more to focus on the information exchange and the interoperability of those provider directories so that there can be communication between a provider directory and other provider directories. That was the number one element, not do a rip and replace but build on the existing many numbers of provider directories and create standards and create policy directions to ensure that provider directories, the ... provider directories can interact and interoperate.

Then a second critical element was to ensure that electronic health records will be able to then electronically and automatically interoperate with the provider directories through a standard message query and response type of situation. So the concept was to recommend then through the Standards Committee to define standards in those two areas, standards that will allow provider directories to communicate with other provider directories and standards that would allow electronic health records to interact with the provider directories and do queries and responses. That's the essence of the message.

There were a lot of other policy directions and recommendations around provider directories, both in the entity level provider directories as well as this new set of recommendations about individual level provider directories around concepts of operational elements of the directories themselves and structuring some way of helping the entity level provider directories and the individual level provider directories interact. So there were a lot of other recommendations that were more directed to ONC's ability to work with the various elements in their whole host of activities, whether it's the Beacon communities or the HIE grants or the SHRP or other types of initiatives. As well of course as meaningful use and standards and certification regulations to help us move in a direction where provider directories will be now identified and recognized as a critical element in supporting the information exchange. And where organizations like HIEs will be able to use them and use them based on standards defined by these regulations and by the policy decisions from ONC and from its advisory committees and of course that electronic health records will be also able to interact with them. And in fact one of the current expectations in meaningful use stage two that is being discussed by the Meaningful Use Workgroup in the Policy Committee is in fact the ability for electronic health records to interact with provider directories. So that's where the need for defining a standard by which electronic health records will be able to interact with provider directories and certification criteria for that is so critical.

That's, I guess, a starting point for the discussion around the tasks at hand, if you will. Again, some of the other concepts that were discussed and defined in the Policy Committee recommendations on entity level provider directory was to try to use an Internet-like approach and basically establish mechanisms in which there will be certified registrars, for example, that will perform registry management functions in accordance to national guidelines. Ultimately again in the ELPD side be able to use those entity level provider directories to facilitate the discovery of specific entity characteristics, I mentioned security, HIE capabilities, gateway addresses, etc., and deliver the message to the doorstep, is sort of the concept. To the doorstep of that entity that is receiving the message, so that the entity can then open it and use it, or distribute the information internally based on the policies. That helps, I hope, define some more of the expectations from the Policy Committee recommendations.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Walter, if I can summarize and –

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Sure.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
... focus this discussion. What we need to come up with are standards that will enable an EHR to exchange information with a point B, where the point B is. The EHR knows the name of point B but needs to discover the digital certificate, server addresses that are the doorstep into that enterprise, and the third thing would be transport services that are available to enable that exchange, right? We're not focused on internal directories or even the specific architecture of the ELPD or anything like that. But

specifically how do we get information from point A to point B where the name of point B is known but the details of how to get there are not.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Dixie, could I elaborate on that and just ask if that's the right task? It may be the one that we've been assigned but it seems to me the prior problem and the one that we stumble on now is how do you know the exact name of the institute that you want to communicate with? Because you obviously have to have a unique name, a guaranteed unique and exact name if you're going to send PHI data to it in an unsolicited fashion, or in a non-human intervening fashion, so isn't the first step how you figure out –

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Yes.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
... the point that you want rather than –

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Yes, but what I was trying to say is that you don't just know the name of the patients, you know the name of the enterprise you want to reach and you may misspell it or something like that, but it's not like you're just going out and saying I want to know where David McCallie's information is.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
But if I was a provider office in the town I grew up in where both my father and my brother practice medicine and where, had I stayed in medicine, I would be practicing probably, we all have very similar names, how do you verify that you've got the right McCallie –

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
But we're talking about enterprises, not people.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Okay.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
David, if I may interject. Yes, there were some assumptions that have to be made by the Policy Committee making the recommendations. One of them was the entity that is trying to send a message to another entity at least knows three general things, and they might not know all the details or the exact names, but they know the name of the patient. They know the name of the personal primary care provider, and that's even a question, and they do know the name of the entity in which the patient is in care. They might not know exactly the location. They might not know exactly the place, so they might know that the patient is with Kaiser or is being cared for by Kaiser. So if the person or the individual that is sending the information, the provider entity that is sending the information to this other entity that they call Kaiser, knows more details they can use it to define better the exact location. But if they don't know the expectation is that they will be able to send the data to Kaiser or the location, and they will be able to use the provider directory to identify, okay, what are the different Kaisers that exist in the directory and is there –

David McCallie – Cerner Corporation – Vice President of Medical Informatics
But, Walter, that latter statement you said makes sense to me because it implies someone who's actually looking at a screen of choices and picking one, a human. I thought that we were taking that off the table and saying this is just for machine discovery.

John Moehrke – Interoperability & Security, GE – Principal Engineer
But the machine needs to discover the alternatives. The fact that it presents them to the user and the user selects, that user interface experience is out of scope.

David McCallie – Cerner Corporation – Vice President of Medical Informatics

No, I understand, John. That's a very helpful clarification. But my point is that it's a query of a directory with some choices coming back rather than a query of a known address to say what's your certificate that I want to send to you? Those are two separate –

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Right. You have to discover the certificate at some point as something they have to discover but they know the name of the entity.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
But we have to address the refinement of the name, a machine interface, with possible human intervention followed by discovery of the certificate.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
I agree with you, yes. We just have to make sure we don't get into the individual provider names because that's an internal test. But if there's a Kaiser and a Kaiser in the same area we need to have the capability to disambiguate names of enterprises.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
I suppose that Kaiser as an entity may have hundreds, probably thousands of entity endpoints that are not human endpoints but with the different offices and the labs and the consulting and billing and everything else, they probably all have secure endpoints without any humans being involved. If you just did a general "Send to Kaiser" it would probably end up in a wastebasket somewhere.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Yes, that's a good point.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
And you wouldn't want to send PHI that way, either way. I just want to make sure I understand that this is actually a directory query that will produce a list of choices that have to be refined by some out of scope process followed by a query that says, possibly a second query that says give me the particulars now that I know the exact address.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
That is exactly the concept that was put forward with the use cases. It might take one single step if it's that simple, if the details are very well known, or it might take more than a single step to get to the specifics to be able to then retrieve the actual information.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
To carry on with what John was saying, so in our requirements we need the ability for, if there are multiple entries for a human to select, but we don't need to get into the what's the user interface. Is that right, John?

John Moehrke – Interoperability & Security, GE – Principal Engineer
Yes, that's what I was pointing out. I think David pointed it out as well. I think it's important for us to explain to those who are watching us as well that, yes, we do expect the user may have to get involved to distinguish between multiple responses, but that how that user gets involved is out of scope, because I think –

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
That's what I was trying to get to. How would you state it, that's why I addressed it to you, how would you state it to leave out the UI?

David McCallie – Cerner Corporation – Vice President of Medical Informatics
It's really a definition of a protocol – well, anyway, John, I'll let you take a shot at it.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences

Either one. That's what I was trying to ask is how do you specify that without getting into the UI.

John Moehrke – Interoperability & Security, GE – Principal Engineer
Well, I think how we specify it, I like where David was going, in that we say we need to enable the ability to discover entries that have characteristics, i.e. a query, we do expect that the system may need to get involved a user, but that that involvement of the user is out of scope.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
My opinion is that you can't leave that out of scope because, as David correctly pointed out, and I would say that maybe in the majority of cases there would be a need for somebody to look at two or more entries and say I want that one and the machine goes off and does it.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Yes, I think –

John Moehrke – Interoperability & Security, GE – Principal Engineer
I think if we do it from a procedure we can explain that there is a high level abstract process by which a user gets involved in choosing of the responses which one are they interested in. But to get involved in specifying that this field has to be displayed and that this other field has to be displayed to its right, and that this needs to be in blue and that needs to be in yellow, that's the user interface or the user experience that is certainly out of scope, in addition to how did the user indicate the vagueness of the query to begin with. I want to find the endpoint for Kaiser, the actual way in which the user asks for that should not be specified. What needs to be specified is a reasonable set of abstract use cases that we're going to enable.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Yes. Dixie, I agree with the way John put it. We're not saying that the user is irrelevant to the process, just that we don't need to spec out that exact interaction step, how it happens.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
We do need to include, I think, as a standard that the EHR needs to be able to allow the user to select.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Right. So something like the Surescripts provider and pharmacy directory service, which is embedded in most EHRs today, lets you, as a provider or someone in a provider's office, formulate a search query, if you would, that specifies perhaps a pharmacy by street address or zip code, pharmacy name, and comes back with a pick list and then you say this is the one I want to route the prescription to. And there may be a second transaction under the covers that says, okay, I need to get details of that particular pharmacy's address in order to actually route the message. So it seems to me like we want something that's a generic version of that focused at all entities rather than just at pharmacies.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Yes, I think there are two pieces to it. One, to enable the user to specify the name of an organization; and two, to select from multiple entities that are –

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Yes –

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Okay.

John Moehrke – Interoperability & Security, GE – Principal Engineer
But we do need to be very careful when it gets to user experience and expectations. For example, many of the use cases we've been informally talking about so far in this 30 minutes, some of them could be done by an administrative user ahead of time. And if we just said that the user has to select from the

responses that come back, there will be people who will misunderstand that and say oh, the clinical user has to get involved in this query and retrieve in real time while they're trying to do a case.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Yes, that's a good point.

John Moehrke – Interoperability & Security, GE – Principal Engineer
So we need to be very careful about any time we're bringing user expectations in. On the other hand I think there will absolutely be cases where the clinician will indeed be part of the interaction between directory query and response, but not all times. Especially as, David, you're bringing up things related to prescriptions, that better be an administrative user that does this once while they're setting the system up and maybe he sets up a small set of alternatives that are locally configured and there's no network interaction in real time.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
In this day and age it certainly doesn't even need to be a human. You can have business intelligence that says, okay, if it's within this particular geographic area then it's this organization. So I think we need also to not specify the user.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
The other thing that is important to consider is that these directories are expected to support not just the first time users type of situation, where I'm for the first time sending data to these entities and now I need to find out who they are or where they are and all these details. But once you have created, if you will, that kind of a path, be able to use the directory to reconfirm, if you will, the security credentials, for example, and the information exchange services and capabilities. In many cases you do this the first time situation and use the directory and do the interaction, in some cases you might even have to use a phone to call someone or do the selection via some web interface or whatever interface is chosen by the entity, but that's a first time user. The other situations, which are probably the more likely ones, once you have already established a path, is to really verify or validate the information that you have about the security credentials and other elements.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
I think that that's a good point and it raises the distinction between I think there's at least two separate query interfaces that we're talking about. One is the search one, where the originating system supplies some parameters and gets back a list of potential addresses. The second one is given the identifier of a potential address, get back all of the details about how to send or how to interact with that address, which would include presumably the digital certificate and perhaps other related information. And you might use that search service once to set things up, as John described, but then every time before you send a prescription, for example, you might validate that the digital certificate is still correct. In other words, that would be something you did every time but a human wouldn't even see that latter query, the address validation query. If you cache an address, it might expire –

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Yes.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
... change the receiving system re-maps their mail addresses, for some reason, and we need a validation query or a detail query. In our rubric we'd call it a list query is the main one and then a detailed query is the confirming one.

John Moehrke – Interoperability & Security, GE – Principal Engineer
Right. Again, we shouldn't get too prescriptive because if we get too prescriptive – before you do every transaction you have to check with the directory to see if the certificate is the current certificate. We will then create a denial of service problem.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences

Then we're getting ... besides.

John Moehrke – Interoperability & Security, GE – Principal Engineer
Yes. So again we need to be careful. The thing that we're ... hard is the thing that's common amongst a larger set of potential alternatives, architectures, use cases and such, and that we are trying to enable x, y, and z. We're not trying to mandate this user experience and that workflow and this –

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Yes, and even whether for user or software, I think we have to be careful not to specify that. David, you named two, search and validate, isn't there a select in the middle? Isn't there search, send out my search, select from among what's returned, and then validate?

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Yes, and I think as John and I would say, that select is an abstraction that we won't specify how that occurs, it's presumably human mediated, but it doesn't really matter. Some process selects from a list and then you can confirm the details –

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Select is not a transaction. It's more of a process, I think.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Right, exactly.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
The other two, which were the ones I mentioned, the distinction between the first time user and the second ... time user, those are transactions. Those are expected to be really the actual exchange, query. One of them is really for the first time so I'm going to get a lot of Kaisers in it, and then the second one is now that I know which Kaiser it is I'm going to query the details of that.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Okay, good.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Just to make an analogy of the real world problem that the Direct Project is wrestling with now, well maybe I shouldn't do that because that is provider specific. But the same general rubric pertains. You have to find the address first and then you have to validate the address by fetching the public certificate.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Yes. So given that we have these two queries, let's get to what standards we might recommend.

John Moehrke – Interoperability & Security, GE – Principal Engineer
Before we go there, I'd like to understand a little bit more about what are the things that we're trying to enable. And I'll take a step back and say, I understand the Direct Project is certainly something that we're trying to enable, and ... is pretty constrained as to I'm trying to find the lab interface at XYZ Clinic. It's not a hard thing for us to understand. Are there other things that we're trying to enable?

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
I'll give you one example that, as David will tell you, when we were doing the assessment of the Direct Project and technical assessment. We spent a lot of time talking about this, is that if you're a large organization you might have specific servers that are able to accept a direct message, let's say, and another server that is able to select an FDS transaction. So if you have a particular way that you communicate, if you use only Direct then you don't want to go to a SOAP service. You want to find a service that can accept information the way that you can send it. Or you might be sending – well, that's a good example. The Direct is a good example, somebody who can accept something that's in this e-mail.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO

I think that is one of the ways many HIEs are approaching this concept of, well, an interoperable information exchange system, where nodes organizations in the HIE would have a server, an "exposed" server and a server that serves as the external interface to the world, if you will, in that HIE. It's a known server to where data is sent. And then you drop the data at the doorstep of the organization, that server, and then the organization picks it up and does whatever they do internally. So that discovery of that server and all the elements associated with that will be one of the things we're trying to enable, I think.

John Moehrke – Interoperability & Security, GE – Principal Engineer
That's what I had heard informally and I'm kind of going whoa, wait a minute, that's huge in the way of scope. In the case of Direct, Direct has made explicit pre-conditions that the relationship between the two endpoints has been dealt with externally, i.e. Doctor A knows that Doctor B will accept that I'm sending them information about Patient X. That the consent issues related to this have been worked out of band, that the authorization for need to receive the information from you has been dealt with out of band. So in the case of Direct, it really does boil down to the technical aspect of how do I discover the certificate and the endpoint address. All of these other things are administratively put out of scope.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Yes, but –

John Moehrke – Interoperability & Security, GE – Principal Engineer
And when you're talking about network transactions, and this would be through Surescripts, this would be through with the Health Information Exchange using XDS or some other protocols, the NHIN Exchange, there is a lot of administrative paperwork, so to speak, that needs to be brought in before any network transaction is allowed.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Yes, but I think that's out of the scope of this. We're talking about electronic protocols, how do I find an endpoint and exposed service that can accept the information using the protocol that I'm able to send it.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
I would call it out of scope, but I would also say it is a pre-condition, just like, John, you say in the Direct Project, this is an explicit pre-condition. I think it will have to be clearly and explicitly stated that of course if some entity's going to send something to another entity. The entity that is sending will have to have a lot of things resolve out of band before they really get to the technical location and security credentials of the entity that is going to receive the message, right? Because any entity that is going to disclose any document, if it's PHI will have to have all sorts of other things, pre-condition things established.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
That's not standards. That's policy. Policy and governance, I totally agree with you. But I don't think the EHR standards and certification is going to check on any of that.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Of course, and the point that I'm making is that they have to be defined as explicit pre-conditions as well.

John Moehrke – Interoperability & Security, GE – Principal Engineer
The point I'm trying to make is I think in those use cases I find it less likely that any part of the first transaction, the discover, the oh, would you please tell me all of the ... endpoints at Kaiser, is at all an interesting transaction. Whereas, second you say I know that this is the identity of the lab interface at Kaiser and I want to interact with that, that second one, where please give me the normative information about the endpoint's WSDL and address and certificate become more understandable.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
I know it's not necessarily as interesting, but you wouldn't argue that it's not necessary, right?

John Moehrke – Interoperability & Security, GE – Principal Engineer

I would argue that no one is willing to publish that as a discoverable thing. Why would they say, yes, by the way, hacker community, here are all my endpoints?

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
I think they would, based on our extensive ... office, that they would be willing to publish the URL of a server that's able to accept Direct transactions that are just SMPP, S minus SMPP. I think that they would be willing to publish that. I think that would be discoverable and I think that's exactly the kind of thing we're talking about here.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
That's what they're doing today in many HIEs. Today that is how HIEs operate in many places, right?

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
It's a good example, yes.

John Moehrke – Interoperability & Security, GE – Principal Engineer
... the HIE, so the HIE itself does have a WSDL registry, a registry that has all the fine details of the service interface. And, Dixie, I want to come back to what you said, I absolutely agree with you when it comes to Direct ..., i.e. the Direct Project. The fact is they are already mandated that they have to respond to MX record lookup, that is the registry that you're talking about for the Direct Project, for S/MIME. I understand the Direct Project. It's when you move into a Web service, whether it be RESTful, or whether it be SOAP, or whether it be proprietary, it's when you move into a network service that I'm not grasping what it is that we're trying to enable there. That's all. I get the Direct Project. That one I totally get.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
It seems to me that it's reasonable to suppose that the directory service, both of these transactions that we've talked about, the one where you get the list of choices and the one where you get the detail about any particular choice, could come with security constraints on them as to who can invoke the service. That's pretty abstract and some people may say it should be open to everyone, other people may say it's only open to people who know a particular password or have a token of some kind. Is that sufficient at our level to just say that the option for making those restricted services is part of the requirements?

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
I don't think we can do that. I think that that's a policy question.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
I'm talking about the technical capability to make it restricted.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Okay.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Policy could say it shouldn't be, or policy could say that it should be, depending upon the specific use case.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
I think we need policy in order to even have that as a technical requirement.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
But the one we heard about from Massachusetts was quite restricted. It was not open.

John Moehrke – Interoperability & Security, GE – Principal Engineer
.... It was not open to anyone externally.

David McCallie – Cerner Corporation – Vice President of Medical Informatics

Right. It was open only after going through some passwording steps. I don't remember exactly how they protected it, whether it was Kerberos or something else, but it was restricted because I remember asking that specifically.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Yes.

John Moehrke – Interoperability & Security, GE – Principal Engineer
David, I think on yours, I think absolutely. I think in all of the models we heard, they have the ability to enforce policy, but we wouldn't ... the policy is. And I think you agree ....

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Yes. No, absolutely.

John Moehrke – Interoperability & Security, GE – Principal Engineer
I don't think we need to be told what the policy is in order to enable it.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Yes, I agree. I think you're absolutely right. They need the capability to enforce local policy.

John Moehrke – Interoperability & Security, GE – Principal Engineer
But my point is not to bring up the question of can everybody turn this query of where is your prescription service. I'm not necessarily saying that that is an issue of policy. I don't want to publish this. It is more I'm trying to understand the use case that would lead to need to query for the prescription interface of another having not already done a bunch of paperwork to say, by the way, our organization agrees to your organization's prescription requirements and we're going to give you this and you're going to give us that. So there's going to be so much administrative upfront that there's not going to be a need to discover, there's just going to be a need that now that we have the agreement I need the detailed connection information.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
John, I understand where you're headed with that and I think it makes a lot of sense. But just to come back to the Surescripts pharmacy lookup, the individual providers who have access to that network have gone through a vetting process and assigned business associate agreements, etc., and so have all the pharmacies. But a given provider could find any pharmacy without a pre-negotiated agreement, because they've already solved that problem through the master agreements. So in that case someone says I want all the pharmacies near zip code XYZ and then once you find one of the pharmacies, the patient says, yes, I know where that is, send it there. Then the doc says, okay, I need the details and he sends it. Again, Surescripts handles all that themselves, but I'm using that as a use case.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
The same would happen with labs, for example, or say a hospital that is discharging a patient. First of all, the hospital that the patient shows up in the emergency room and they need more information. The only thing they know is they're in Miami and this is patient from Boston, the typical example we always use, and so there is a need to find the right place to send a query for obtaining more information about the patient. Or the hospital is discharging the patient and now they want to send the data to the provider that regularly treats the patient, and it's in another state and all that so they're now searching for the provider. Now, today of course, all of that is done by phone and fax, but the idea is that in the future you would use this provider directory to do the query and locate the place that the message would go to. There are a number of use cases that point to the need for doing this first query to find multiple interests, if you will, before or without the establishment of all this paperwork in the background.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
In fact, this very query could be used to find out where you send a request for an authorization.

John Moehrke – Interoperability & Security, GE – Principal Engineer

Okay. But I –

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
... talking about –

John Moehrke – Interoperability & Security, GE – Principal Engineer
... it's the lack of a set of use cases that seems to be a problem, because now I'm hearing, Walter, you just brought up a query on a patient, not a query on a provider.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
No, no. The query is on where to send the request for information on the patient. The hospital knows that this is a patient from Harvard Medical in Boston, but they don't know where to send the query to get information about the patient. This is not yet about sending patient information. This is about sending a query to receive back a patient problem list summary or whatever.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
I thought we heard a number of use cases that were similar to these when we got our testimony from Massachusetts.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Yes.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
I forget the gentleman's name off the top of my head right now. He covered a number of use cases, not enumerated as such, but just in describing the way people used their system, some of them had to do with billing and things that weren't traditional HIE capabilities.

John Moehrke – Interoperability & Security, GE – Principal Engineer
I thought all of his were on humans, not –

David McCallie – Cerner Corporation – Vice President of Medical Informatics
That's a good question. I need to go back and re-think that.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Maybe we're talking about these two applications of the same message. The same message can be used to, first, ask for I need to find this entity, and the responses were there are 50 or 34 different entities. But the same message that is being sent from the HR to the provider directory, the response in the first case is, well, there's a list, so here's the list. Then you select the actual one, and then the second message when you get into query is the same one as the first, except that this one has the detail.

John Moehrke – Interoperability & Security, GE – Principal Engineer
Yes, and I think we agree on the pattern of the query and the get list and the get item, I think was something that David may have said. What I'm trying to get at is, okay, great, what kinds of parameters do we need to be able to enable on the get list and get entry? Without knowing the use cases what are we going to do, say attributes to be named in the future by some other committee, return attributes to be named by some other committee? That's a great query and response but I don't think it's very helpful.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
You could say, and I know this was actually floated by someone that we could do worse than to just say it's just a Google query against an indexed set of attributes. And when I say Google query I put that in quotes, a query like Google does. So supply as much information that you think is relevant and you get back a list of things that match based on the remote system's capability of being clever about parsing a query. Don't try to over-parameterize it, just let a match occur. If I wanted to find Dr. McCallie, Neurologist, in Kansas City, I'd say, "McCallie, Neurology" and maybe I'd get it. If that doesn't get me a restricted enough list I might say, "McCallie, Neurologist, Kansas City."

John Moehrke – Interoperability & Security, GE – Principal Engineer
I think all the standards that we were presented with have this capability. This works for LDAP. This works for DSML. So that doesn't help us decide which one is better.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Yes. So I think –

John Moehrke – Interoperability & Security, GE – Principal Engineer
What are we going to use as the criteria for deciding which one is better, or are we just going to –

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Do we get to make that pick? I'm so confused about this S&I process. I thought our goal was basically just requirements.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
I think that, and I totally agree with you, the questions we asked at the Standards Committee were not well answered. But I walked away that, and I actually confirmed this with a couple of people, with the bucket conversation that we should recommend as detailed standards as we feel comfortable recommending, and if we feel comfortable recommending LDAP, the LDAP schema, then we should recommend it. Right? That's where I was trying to get with the standards, I think we did hear that the IT HPD has implemented DSML to do the LDAP schema over the Internet, for example. Now, my personal view is that most internal directories are likely to be using LDAP, so I think that that IHE using DSML as their schema made a lot of sense to me, just for that reason. I think that that would be a good starting point first.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
We're already jumping into some of the scripture, the types of standards we can recommend. Those are good examples, but I wanted to take it one step before that and say, okay, and John, not to avoid continuing the discussion about the questions on the first query kind of gets, if you will, transaction, but let's assume that again the same type of transaction is used to do the get as well as to do the more detailed query. What I wanted to ask is what are the types of transaction elements that we would try to define in the message itself. So this is what I have, I have basically three aspects of this. One is the schema of the query response that goes from the EHR to the provider directory. The other one is the content standard, so the schema standard, if you will. The other one is the actual content standard. And the other one is the transport. Again, the transport is this of the EHR query response to the provider directory. First of all, is this a good way of saying these are the three areas, are there more, or is this not even the right way to begin think about this?

John Moehrke – Interoperability & Security, GE – Principal Engineer
What was the differentiation between your first and your second?

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
That's a good question, I guess. The schema standard, if you will, is more of the grammar that will be used in the wording, if you will. Then the content standard is the actual data elements themselves.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
The vocabulary.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
The vocabulary, exactly. I don't know if that's the right way to describe it. But that's why I was trying to think of them differently.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
I think that's right.

David McCallie – Cerner Corporation – Vice President of Medical Informatics

Those sound like good categories. I just wonder if, though, we should be thinking from bottom-up in this case rather than top-down. I know everything has to be kind of a mix of top-down and bottom-up, but does it make sense to look at existing standards that have a remotely likely chance of being useful in this space?

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
That's why we looked at these.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Yes, exactly. I think that's the way to start is, okay, so far we heard four, at least, groups of standards. One was IHE HPD; another one was the X12 274; the other one was HL7 and OMG work; and the other one was the ISO. I think those probably were the four, or maybe there's some more that people can think of in this group here. And those were the four that we heard and some of them were, like IHE, were a combination of base standards, but again those were the four types of standards we heard and we can try to begin discussing how they map against schema, content, and transport ....

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
The IHE is not a standard. That's an implementation –

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
....

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
... that uses SDO standards, and the others are actually SDOs. But I would agree that these are the ones ....

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Yes. IHE is a profile that uses base standards.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Yes.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Just for my memory sake, is the IHE HPD profile, it's based on LDAP, is that correct?

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
LDAP inside the organization and then DSML, which is the LDAP schema translated for Internet Exchange.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Yes, thanks.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
LDAP is kind of a basic schema.

John Moehrke – Interoperability & Security, GE – Principal Engineer
Essentially it is a schema and you can get to the schema via LDAP v3 transactions or DSML, and whether you choose to use LDAP or DSML as your choice and whether your network interface is internal or external is your choice.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Then, I missed the X12 conversation. I think I was either on an airplane or something during that meeting.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO

X12, of course, uses batch mode type of transactions, so they have a standard message and they use something called a 274. Just like they use the 270/271 for eligibility in query and response, the 274 is their provider information transaction, and it's used primarily for, although not exclusively, but primarily for providers to send to a payer "these are our providers," and there's a host of things to go along with it.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
And it uses the standard X12 style –

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Oh yes, absolutely. They have an implementation guide. They use all the standard X12 structure, which is based on loops and segments and data elements and then –

David McCallie – Cerner Corporation – Vice President of Medical Informatics
I've heard enough.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
I'm sorry?

John Moehrke – Interoperability & Security, GE – Principal Engineer
The other piece is it's primarily a batch update.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Yes. Walter, I was joking. I said that I've heard enough. When you said loops and segments that was enough.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
What's the ISO that you're talking about beyond, I mean, ISO is used in HPD but were you talking about it as a separate ISO?

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Yes, that was my next question too.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Well, maybe it's the same, so maybe it's not even a separate one. I guess IHE HPD references ISO as one of the –

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Yes.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
... base standards.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Yes, that schema is a combination of LDAP and ISO.

John Moehrke – Interoperability & Security, GE – Principal Engineer
Correct.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Exactly. So ISO and LDAP and DSML are more the base standard reference by HPD.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
So I would say there are three of them ....

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Okay, good. Okay.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
That's good. That's progress.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Yes, there you go.

John Moehrke – Interoperability & Security, GE – Principal Engineer
The other point I'll bring up is the HL7 sew up project is only available as an abstract model. It doesn't have a concrete model yet and it is only out right now for proposal. So there's nothing there to select.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Yes.

John Moehrke – Interoperability & Security, GE – Principal Engineer
It may be helpful to us, though, in that it has an abstract schema but it doesn't have any concrete. You can select it and nobody can do anything about it. They'd say great.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Exactly. The point, John, was to try to, okay, so here's we're already using some criteria to say this one is not just mature enough, or it's just in the development stage, and sort of the same criteria back in our history days, remember, John, we used in tier two –

John Moehrke – Interoperability & Security, GE – Principal Engineer
Oh, yes.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
... and those kinds of things?

John Moehrke – Interoperability & Security, GE – Principal Engineer
Yes.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Yes. I would add as a fourth the NHIN schema, which really was based on HL7, and I would agree with you. As we look at these, HPD has been implemented by the Social Security Administration but to anticipate Wes' question, it's not broadly used. X12 is currently doing their 5010 update and when they presented to us they said that they were more than willing to work with us and to tailor that 5010 update to include the kinds of information we would need. The HL7 OMG, John just talked about. And the NHIN is really a proprietary schema that our presenter from CSC wasn't sure whether they could even make it available. So technically we really couldn't refer to that, I don't think, as a standard.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Dixie, just a slight correction maybe. When you said that HPD isn't widely implemented, that's true, but LDAP –

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
LDAP is.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
... is extremely widely implemented.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Yes. In fact, that's why I jumped the gun a while ago. My opinion is that I think a subset of HPD is what we're looking for here, because HPD is really, as I understood it, both internal and external. It's a very comprehensive schema that includes data elements far beyond what we need for what Arien refers to as a thin waste, just getting information from point A to point B. But I would like to ... it.

John Moehrke – Interoperability & Security, GE – Principal Engineer
The other positive is that HPD recognizes that the underlying standard has attribute based access control built into it, so if you do not want to publish your phone numbers you just simply say yes, these are not available to anonymous queries. So it just simply says, hey, we didn't have to specify security because LDAP has security built in. So, David, your earlier question about well, how can we recognize that some people may not want to publish all of the attributes.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
John, you know most about HPD. I know just what was presented to us. And I do know that most internal directories are LDAP, so I like the idea that they chose a schema that translated LDAP into XML for Internet exchanges. If we wanted to recommend a subset of the HPD schema, is that something we could do realistically?

John Moehrke – Interoperability & Security, GE – Principal Engineer
Sure. This is where we get into the question of who subsets for a particular region. And I don't see any reason why IEG is going to care if some organization subsets the international stock into a U.S. region stock. The fact is, IAG generally has country-based domains, so there's an EU IAG that does the subsetting for the EU. It hasn't, until just recently, had a U.S. name, but even that is really recognizing that not necessarily does there need to be a U.S. domain in order for subsetting for the U.S. to be done. So absolutely it could be subsetted by us.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
John, what have been the barriers to adoption of HPD if it hasn't been widely adopted? Is it simply that the need wasn't strong enough? Or are there identifiable issues that we should address?

John Moehrke – Interoperability & Security, GE – Principal Engineer
I think it's more there is a – okay, it's a very difficult subject to pick apart. The question around whether HPD is widely implemented is a question of, well, what part of HPD are you really focused on. We've already discussed LDAP as highly implemented and that's 80% of HPD is just to say, yes, don't invent a new database, use LDAP. Then HPD pulls in rather common schemas for defining organizations and for defining users, and then it specializes it to say, well, healthcare only needs to add these extra attributes and define that they use these vocabularies. So if it's a ... nothing, yes, there's not been that much deployment, but if the basics have been proven, yes, the basics have been well proven.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
And the transport protocol that one invokes it over, is it a self-service, or is it a don't care, or does that ... DSML? I'm not familiar with DSML.

John Moehrke – Interoperability & Security, GE – Principal Engineer
DSML is a SOAP-based mechanism for LDAP. There's LDAP v3, which is core LDAP part number. It's not SOAP or REST or anything, it's just LDAP. Then there is the DSML, which is a SOAP-based version.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
DSML is SOAP or REST. It's not restricted to SOAP. And you can see that on this, but when they presented that question was brought up and what they used SOAP for, HPD, what HPD uses SOAP for, it's my understanding, was to update the directory not necessarily just to query. The DSML query is not restricted to SOAP, but it could be RESTful as well.

John Moehrke – Interoperability & Security, GE – Principal Engineer
Right.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
While you were doing those comments I have three tables that might help us scope out and define better the type of recommendations we would make. Let me just describe them and see if this is helpful. The

first table, and all the tables, the rows are these three potential candidates, if you will, not potential, but candidates, so we have IHE, HPD, X12 and HL7 ... –

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
I think what our – it shouldn't be –

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Let me finish and then we'll –

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Yes, but that's not a standard. I think that row should be DSML.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
No, no, no. Let me try to finish and then we can debate on what to name them. The first table in the columns would be the three characteristics I mentioned, the schema of the EHR message to/from PD. The second one was the content, and the third column will be the transport, and is to try to say, okay, again in the row if the first row is IHE HPD then the schema that they define is LDAP and DSML. The content that they define in the message is the ISO content, I would think –

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
In LDAP.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
So, okay, we can begin to fill it up, but just to give an example there, and then the transport we can say is SOAP or whatever. And then we can do the same exercise perhaps with X12 and HL7, standards if they define those. I have a last column that says "Comments" and then we can just say, well, this one doesn't define schema or it doesn't define a transport, for example. So that's the first table, just to allow us to describe what are the specific underlying standards, base standards that each of these candidates provide for schema, for content, for transport.

The second table is also asking the same three candidates whether they support entity discoverability, discoverability of the entity's information exchange services, and discoverability of the entity's security credentials. So there's a question about whether there's a check mark or comments or whatever, that's the second table, just to document how much they support the minimum functionality that we're asked to ensure the standards for based on the Policy Committee recommendations.

Then the third table is more about whether the candidates, again, the rows, would support provider directory to provider directory messages, EHRs to/from provider directory messages, or EHRs to other messages. X12 supports the message sent from the EHR to a health plan system, not necessarily to a provider directory or not necessarily provider directory to provider directory messages. So this might help scope out the information about this candidate that we want to document anyway. Is that helpful? Is that too much detail?

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
What's the third one, the provider to provider EHR –

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
The third table, again the same rows, but the columns would be provider directory to provider directory messages. So does the IHE HPD profile support provider directory to provider directory messages? The second column is EHR to/from provider directory, which is truly the focus of our priorities, right?

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Yes.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO

We're looking for standards that support the messaging between the EHR and the provider directory, so I'm just building the table to show whether they support provider directory to provider directory, EHR to provider directory, or EHR to others.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
And then the third is what? ... third?

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
The third column is EHR to other.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Oh, EHR to other, okay.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
I think it's helpful to try to break these apart like that. The concern I have a little bit is that it seems like you could use these protocols and schemas in ways other than the way people are necessarily currently using them, so you could host an X12 batch query service that serves provider lookup or entity lookup to EHRs. It's just not typically used that way.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
That would be a great comment to include in that.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Okay.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Yes, okay.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
It's not so much that it couldn't be done, is it's not typically used that way.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Yes. I agree with David. Quite frankly, I would eliminate that third one.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
It was the second one, I think, or maybe it was the first one.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
The PD to PD messages one and EHR to PD messages, the one that was all messages.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Yes.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
The third column, but the third column is the one that points to whether the profiles actually can support them, or the standards. Now, we might just say in all of them not typically used this way, but the question is can an X12 message be used to buy a provider directory to send data to another provider directory or to a provider directory registry?

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
I think all of them could be, if you wanted to.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Yes, my fear is that that's not sufficiently discriminating enough.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences

Yes, you're just going to say yes, yes, yes, the whole table.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
And I want to throw one other question on to the potential list of checkable items. I think we've had some conversations in the past where we admit that the distinction between entity lookup and individual provider lookup will blur. It makes sense to me from a parsimony of effort point of view, if we pick a standard that works for entities but also works for individuals when it's time to extend it, that would be a big plus.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Yes, that's a good point.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Just reduce the implementation costs. I think these standards could meet that criteria, it just may not help us distinguish, but I think it ought to be part of our evaluation.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Yes, I agree.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Okay, good point, yes.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
The other thing, Walter, I've lost track of the columns or the rows, but I was just searching around a little bit reading about RESTful interfaces to LDAP and it looks like some people have created RESTful interfaces to an LDAP endpoint that uses DSML as the message format, but does not use a SOAP service to query it. So it would appear that DSML is both a message format as well as a query transport mechanism, so we might want to distinguish between those two. In other words, you could –

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
I don't think it's the transport. I think it uses REST. It can use either SOAP or REST.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Okay. I just wanted to make a distinction that DSML does not require you to use SOAP, it looks like.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
That's what I said earlier, it doesn't.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Okay, I missed it. Sorry.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Yes, and in the tables we're separating the schema from the transport. But it's a good comment to include again in the Comments column that DSML does not require the use of SOAP.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
And when you –

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
So we just put in that we use SOAP or REST, because that's how it's specified.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Walter, when you say –

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO

Yes, but we need to clarify that DSML does, because some people might think that DSML only uses SOAP.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Right, so in that column we put SOAP or REST.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Walter, when you say schema, are you referring to the contents of the directory store itself, as in what fields are kept and captured? Or, are you referring to the format of the message that's used to move the data back and forth?

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
The latter. The format, I think. The content is separate.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Okay.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Once again, I would like to suggest that on that first table, well all three because you have the same rows, that we not lift IAG HPD, but rather lift DSML.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
No, no, Dixie, DSML is an underlying standard for the schema, which is one –

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
No, I know.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
... the first column. It's not a row, it's a column.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
I'm not willing to sign up to the entire IAG the HPD.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
We're not trying to decide that the IAG is the one. We're just trying to document what are the things that they provide. At the end the recommendation could be a lightweight IAG HPD version.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Yes, but what I'm saying is, if you look at X12, X12 is, well, it's a transaction as well. It's a transaction and a schema. Going back to your – I guess that's what your table one picks out what they use, yes.

John Moehrke – Interoperability & Security, GE – Principal Engineer
I think it's trying to analyze the three different pieces independently so you can say, well, yes, IAG HPD has a great schema, but we don't like their transport, or what have you.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Yes.

John Moehrke – Interoperability & Security, GE – Principal Engineer
So rather than say we have to choose only of the three things that were presented to us the best of those three, we could say, gosh, yes, these guys have a great x, these have a great y, and these guys have a great z, and if you put three of them together –

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Exactly. That's the purpose of these tables.

John Moehrke – Interoperability & Security, GE – Principal Engineer
I agree that's what we should be looking at. I think we probably will spend far more time looking at the different schemas because really it's the schemas that are specific to healthcare and the transports I think are probably going to be the thing that we'll find less and less interesting as unique.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
What about the vocabulary, though, whether they use –

John Moehrke – Interoperability & Security, GE – Principal Engineer
To me that's part of the schema. If you define an attribute which is a select from this list and you didn't provide the list, then you haven't really defined an attribute. So, yes, I agree, once I understood Walter's breaking out of the schema from the vocabulary used in that schema.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Yes. So in HPD what vocabulary do they use?

John Moehrke – Interoperability & Security, GE – Principal Engineer
It depends on the attribute.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
They don't get the vocabulary from LDAP. Some of it they would, actually.

John Moehrke – Interoperability & Security, GE – Principal Engineer
They do, yes. It's attribute specific. That's why –

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Some of the vocabulary comes from the attributes defined by LDAP, but some of them also come from ISO, I think.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
ISO, yes. And then do they use NPI?

John Moehrke – Interoperability & Security, GE – Principal Engineer
They have a position for NPI to go into, yes, but obviously being an international standard couldn't say NPI.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Because that's the kind of thing that I think is needed to be part of vocabulary.

John Moehrke – Interoperability & Security, GE – Principal Engineer
Absolutely. So, yes, they did define where the NPI would go. It would be defined as a – shoot, where is the thing?

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
....

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Yes, yes, I think I remember seeing that.

John Moehrke – Interoperability & Security, GE – Principal Engineer
....

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Okay. Walter, I think your first two tables make a lot of sense. I don't think the third one does, though. But I think the first two would be quite valuable.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Well, let's see how the – I agree. And we can see what this third table means really when you see it and we can throw it away if we don't need to.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
One question, Walter, I should have ..., Direct uses DNS to discover the security credentials. Is the Policy Committee, is their vision that the ELPD would replace DNS for that purpose, that you would go to ELPD would be the authoritative source for the certificates?

David McCallie – Cerner Corporation – Vice President of Medical Informatics
It would be ILPD.

John Moehrke – Interoperability & Security, GE – Principal Engineer
Yes. Let me, though, correct you. Direct did try to use DNS for certificate discovery and they did prototype it and it's available if you've published them there. But they've also specified pulling them through LDAP, and the reference implementation also pulls them from LDAP if they're published there.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Okay, so the preference would be to pull it from an LDAP directory.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
I'll speak up again on Direct, is just that the current discussions are focusing more on DNS to move people forward, because more people have used it, but I agree that the LDAP was envisioned as the long range solution, but I do want to raise the question about LDAP for that use case. The one nice thing about DNS is that it is a distributed system. If you update it, it gets propagated to all the other DNS servers. LDAP doesn't work that way, I don't believe.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Yes, but the vision for ELPD that Walter has presented does propagate like that.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
The profile that IAG has specified does that?

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
No, the Policy Committee's vision for the ELPD is that you wouldn't replicate it across all the places, but you would federate it so that all the information would be up to date.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
But do any of the protocols that we're proposing in our spreadsheet actually do that?

John Moehrke – Interoperability & Security, GE – Principal Engineer
The protocols that we're focusing on are the front side query. The back side –

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Yes, exactly.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Yes.

John Moehrke – Interoperability & Security, GE – Principal Engineer
... is not being specified and that's true of HPD as well. HPD said when you get into the LDAP space there's a lot of ways in which you can push contents, pull contents, federate contents, centralize contents, and all those back end ways of doing this are mature in their space and in their use cases but are unimportant as the front side interface.

David McCallie – Cerner Corporation – Vice President of Medical Informatics

But they are important for interoperability across all these facilities that would need to create knowledge. So are we not –

John Moehrke – Interoperability & Security, GE – Principal Engineer
I don't disagree with you. I'm just saying from a front side query they're immaterial.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
That's a good distinction. But I'm just worried that we need to go to the next level.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
We will. We will, David. Our next step is once we recommend standards for the EHR query, as Walter has presented before, we will now focus on the ELPD and ILPD, which is a good segue into the next thing. We're running out of time, Walter.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
No, that's a perfect segue, absolutely. Thank you.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Can you take on and maybe reach out to one or two others to work with you, if you'd like, but populating these two tables that you described?

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Oh yes, I will finish up these draft tables and send it to the group. I'll probably send it to a few of you first to validate and correct and then we'll send it to the full group before Thursday.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Great. And then move on to the next ILPD topic.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Yes, I'm about to. If we can have on the screen the slides, so last call we talked about the draft recommendations from the Information Exchange Workgroup and they're being displayed now on the screen. These will be presented to the Policy Committee on Wednesday, May 11th, and so we wanted to have a chance, and in fact the chair of the group asked if we had any comments on this, so we have a chance to send any comments before they get presented to the Policy Committee. I'm not sure if they will embed or incorporate or highlight some of those comments in the Policy Committee discussion of course.

Very briefly, just to go through them, if we go to slide four, first of all, slide four is the background on ELPDs. You can see there some of the same messages that I mentioned already earlier, the fact that the ELPDs were more in a federated Internet style and the fact that these will expect to be used to allow entities to deliver messages to the doorstep and those kinds of concepts. Those are re-emphasizing the points that I think we made.

The next slide basically highlights a few of the elements of the recommendations of the provider directory, some of the background, which I already covered so I'm not going to get into this because I really want to try to get into the actual recommendations.

So let's go to the next slide. The next slide just highlights the scenarios, and there again similar scenarios as the ones we built for the ELPD and the expectation that there will be links between the ILPDs and the ELPDs. Now, one of the comments I think we can make to the Policy Committee is the very basic concept that while from a policy perspective there was a clear need and sense that separating ELPDs from ILPDs was appropriate to make policy recommendations. But from the standards standpoint we are bringing them together and so we don't necessarily see a separate, distinct set of provider directories for ELPDs and for ILPDs. But they are probably all in the same space. That's one comment that we can send them.

They can, at the same time as they're presenting this to the Policy Committee, highlight that point. Because we don't want to give the impression that, so the Policy Committee recommended two separate sets of directories, one for ELPDs, one for ILPDs, and then the Standards Committee defined the standards for one set of directories that combined the two, something like that. I guess the comment that we would make to them would be that from a standards perspective we're looking at these together and in fact in a number of examples that we heard during our collection of testimonies, a number of people mentioned that point.

So let me go to the next slide and begin to go through the recommendations. The recommendations were divided into these two categories: policy directives and recommended practices. Some of these things are not like they should be taken literally as a thing that will show up in some regulation or something like that. Some of these are directives from a policy perspective for ONC to use and leverage their various programs and activities to promote the establishment and adoption of these provider directories and then some recommended practices which are more for the operators of those provider directories, the kinds of things that they should consider doing.

The next slide, we divided the recommendations in four categories very similar to the ones we used for the ELPD, the entity level. So let's go to the first set of recommendations in the next slide, recommendation number one, which is the content part. In the content part, again, the recommendation is that the ILPD would include individuals that are healthcare providers, licensed or otherwise authorized to practice. That the information needed would be limited and should include basically the basic elements to identify the individual demographics about the individual identifiers, and then entity affiliations, which then is expected to be mapped back to the ELPD. Again, I'm not going to get into best practices, but let me stop there and see if there are any reactions to this first recommendation or any comments people want to make to the IE Workgroup.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
One thing that's come up a number of times in directory services that we've had to interact with is the notion that a provider may be associated with more than one entity. You may practice as a hospitalist but also on the weekends in an emergency room somewhere, a completely unrelated entity, so just as long as there's awareness that providers aren't always tied to a single entity.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Absolutely. In fact, that was one of the big elements of this individual level type content of the provider directory, that it will have the multiple affiliations of the individual and then each of those affiliations in that entry of that individual will be mapped to the entry in the entity level provider directory of that entity, if you know what I mean. So it's sort of like a cross-reference of many to one, or I guess a one-to-one connection between many entries of affiliations of an individual in their personal record on this ILPD, to each of the specific records for that entity that the individual is affiliated with. So, yes, I think that's a point to be noted.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Then it wasn't clear to me the definition of a provider. I'm sure this has got a lot of discussion, but there may be named individuals who have endpoints that can receive PHI that are not necessarily themselves a provider, or they may be an endpoint like consults or something. I guess you could conceive of that as an entity level thing. Certain labs would have secure endpoints that aren't provider specific, but again that's probably an entity. Never mind.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Walter, the idea, I think, as you've described it, is that, well, you described it from the beginning, that the idea is not to rip and replace all these existing directories. But rather it is the idea, are they trying to specify attributes to be branded part of the national provider directory that you have to include and include using these standards? Is that the idea, sort of a certification, if you will, of directories?

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO

Well, certification not so much, but an expectation, yes. So this defines the attributes and then the policy side defines the requirements. So who's going to be required to meet these attributes and meet these expectations would be the entities that operate those ILPDs. And as one of the policy recommendations later on states, the idea would be to leverage, for example, the HIE cooperative agreement that ONC has with each of the states to create HIEs to ensure that if the HIE is going to create and operate one of these provider directories, that they meet those requirements.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
So if I'm running, to use David's example, the Surescripts directory, so Surescripts could, if it meets the requirements that are set out here, it could be, I don't want to use certified, but it could be recognized as an ILPD?

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Yes. Somehow they would be asked to or expected to or enticed to, whichever appropriate word works, to meet those requirements to be able to interoperate. So they can adopt those requirements, they can adopt those expectations voluntarily, or they can be expected to meet those, if electronic health records that are going to interact with them are going to be required to meet those requirements at the same time. It's sort of the same thing with labs and with electronic health records, the electronic health record has to comply with a standard to communicate with labs, well, the labs are outside of meaningful use. They don't have to respond to any external requirement from ONC or others, but the programs and the expectation from the providers that are going to do business with them will make them meet those requirements.

So in the Surescripts side it's not an electronic health record system necessarily. It's not a system that is subject to or has to comply with regulations. There are a number of policy levers that ONC can use to have entities that operate these types of ILPDs rally towards the standard that is to be adopted. But in some cases they have more direct ability to have those entities comply with these requirements. In some cases they have only the ability to rally the market toward that standard.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
I'm pretty sure this is still true that in the case of Surescripts they actually will be extending their network to offer direct connections and as such will, I assume, expand their provider directory service, perhaps outside the bounds of their current prescription service. I shouldn't be speaking about what the company is going to do, but I'm pretty sure all of that is widely discussed. There's an opportunity there possibly for them to develop a new layer that is more standards based if we, in fact, specify a specific standard. There's a possibility that things can evolve in that direction over time, even though obviously they wouldn't start there.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Yes. So the next recommendation, number two on the next slide, is about the functionality. Again, this is the basic concept that the ILPD would support directed exchanges and query retrieve HIE functionality and in order to do that it should support basic discoverability of an individual provider and their practice locations, then also their characteristics around their ability to link the provider location with the ELPD. So those are the functionality requirements. Let me see if there are any comments or thoughts about that part. In this case, just to add to this, in this case the functionality is a little less extensive, if you will, than the ELPD, and the ELPD's expectation was discover the entity, discover the information exchange capabilities, and then the security credentials here for individuals is primarily discover the individual and their practice location.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
All of this will be part of the governance of the whole NW-HIN, will cover the directories as well?

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Absolutely. That's a good point. Yes, the provider directory is now permeating across different aspects of the activities of ONC, so the S&I framework will be working on those and then the expectation is that the governance will have some framing to be able to support provider directories, so yes.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Walter, the discoverability of the individual is listed clearly. That does not, I assume, preclude discoverability of other characteristics to actually interchange with them, such as digital certificates?

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
No, it doesn't. It doesn't preclude any of those or other features. And in fact one of the comments has been that when you get to individual, the specialty, for example, is something that is not necessarily noted as a functional capability of the ILPD. But in reality things like that will make the provider directory at the individual level able to support other functionality beyond just the pure information exchange requirement, like functionality to allow individuals to search the white pages, a specialist or something like that. Or other things like security credentials too and other things, so yes. At this point the only thing is that there isn't any requirement to have security credentials at the individual level, the recommendations, for example, that we made and that the Privacy and Security Tiger Team made about credentials is at the entity level, organization level security credentials. But nothing precludes this to allow for discoverability of individual security credentials if they have them.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Right, good.

John Moehrke – Interoperability & Security, GE – Principal Engineer
I would think we would want to explicitly include the security credentials necessary for direct. That's something we know is on the plate.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
That would be then another comment I guess we can make to the Information Exchange Workgroup before they present this to the Policy Committee. That's a good –

John Moehrke – Interoperability & Security, GE – Principal Engineer
I agree that from a simplistic perspective you really want to enable direct if the organization, which is one of those scoping things from a deployment and prototyping for direct, but ultimately direct can be end-to-end and if somebody wants their ends to be published how should they publish those certificates?

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Yes.

John Moehrke – Interoperability & Security, GE – Principal Engineer
Really, we're trying to enable workflows of where we know there is an interest to make something known, not mandate that you must make it known.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Yes, as long as it's listed as a desirable option.

John Moehrke – Interoperability & Security, GE – Principal Engineer
If it's desirable they'll want to make it known.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Yes. They will be doing other things while this all gets ramped up, because this could take forever.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Yes. So the last two recommendations, slide 11 are the recommendations on security access and audits. Here, actually this comment would fit probably even more appropriately in this part, the policy directives that are being recommended is to have, the ILPD operator is how we identify the one responsible for establishing this. To establish policies and procedures that defines who can access the ILPD and which data can be accessed and then create all the controls and protections and active controls and things like that, handle sensitive content appropriately, all those things. Then the last, 3D there is support audit trail

capabilities to ensure that access controls and access to the data is appropriately being monitored and audits are being created. So that's the set of recommendations about security access and audits. Any comments on that one? We already talked about of course the security credentials of the individual. This is more about access to the directory.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
Do these imply that they must keep an audit or that it's a capability that should be able to be deployed?

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Actually the recommendation is to develop and put in place audit trail policies and procedures to track access and use. So the recommendation is a little more directed to having it in place and running it, not just have the capability.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
I think in the long run, as consumers are more enabled to communicate securely with their providers and/or the entities that they get their care at, that opening some of these directories or subsets of these directories perhaps up to consumers is going to be desirable, perhaps with certain fields masked, like the DEA number and things like that.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Absolutely, yes.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
As long as the auditing isn't perceived as an impossible burden there may be anonymous access for certain fields just as a marketing opportunity using these same directory services, that could also serve providers with more data being disclosed but with a deeper audit, where it would not be anonymous use. Maybe I'm trying to lump too many things into one thing. But if somebody's going to go to the trouble of building and maintaining these directories, they're going to probably wish to put them to multiple uses.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Indeed, and that's actually in our next and final set of recommendations, so if we go to that next slide, is a series of policy levers. So here's where the recommendation about the Standards Committee be directed to identify and recommend technical interoperable standards, but then a whole host of other recommendations, including the concept and the best practices to leverage the use of ILPDs for other value. We see that this particular purpose has limited intrinsic value, but that certainly there is the potential to expand the value by expanding the use of the information in the ILPD to feed other purposes. Any comments on this last set of recommendations?

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Relating to the first comment you said from a standards perspective that we're looking at ELPDs and ILPDs together, another topic that we've discussed is navigation between the two. Do we want to say anything about that? We've talked about sometimes it's not clear whether you want to go to an ILPD or an ELPD or whether somebody's listed in one or the other, and the capability to navigate between the two.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Yes, I think that boosts even farther the point that while from a policy perspective it might have made sense to split the two, realistically this might leave in the same space and those connections will be intrinsic probably to the directory itself.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Yes. For example, they talk about how the ILPD will contain links into the ELPD, but we've talked about how you might be searching on an enterprise and then you want to drill down to a particular provider. So even at the policy level they need to be able to navigate between the two.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO

Yes, we can make a comment about that, absolutely.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
David, you've brought that up a number of times, maybe you can articulate better than I.

David McCallie – Cerner Corporation – Vice President of Medical Informatics
No, I think that's right. I just think that the distinction between an entity and its providers and of the endpoints where service is provided that may be not named as a provider but is in fact provider group specific or cardiology consult service. For example, the distinction will be very blurry as long as we have technical capabilities to support whatever the policy allows with a single API, we come out ahead. That's what LDAP's good for, or LDAP or similar services, so I think we're on the right path. The policies may differ but the technology is probably the same.

Walter Suarez – Institute HIPAA/HIT Education & Research – Pres. & CEO
Yes. Great, okay, well, I will be drafting a few comments back to Micky, the chair of the IE Workgroup, who will be presenting this to the Policy Committee on Wednesday, so he can frame those or add some comments. He probably will not modify the slides themselves, but just make remarks and include the remarks that we make into his remarks.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Okay, let's quickly open this up to public comment.

Judy Sparrow – Office of the National Coordinator – Executive Director
Thanks, Dixie. Operator, can you see if anybody wishes to make a comment?

Operator
We do not have any comments at this time.

Judy Sparrow – Office of the National Coordinator – Executive Director
Thank you, operator. Dixie?

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Thank you, Walter, very much for leading our discussion today and also we really do appreciate all the work you do with the Policy Committee in developing the policy around provider directories. It makes our job much, much easier to have you involved in the policy as well as helping lead us through the standards. Thanks, everybody for dialing in.

Judy Sparrow – Office of the National Coordinator – Executive Director
Thanks, Dixie. Bye-bye.

Dixie Baker – Science Applications Intl. Corp. – CTO, Health & Life Sciences
Thank you. Bye-bye.

Public Comment Received During the Meeting

1. Comment - to early part of discussion on discovery of correct entity name.....it's almost impossible to discuss the systemic inquiry without mentioning the human readable GUI (i.e. website) for initial look up of entity names / HISPs that manage entities. If an entity name is being looked up for the first time, it likely has to be via web portal (human interaction doesn't work well with web services / APIs).....

2. The assumptions of knowing the entity is enough to allow for an automated workflow are stretching real world capabilities. Many Doctors belong to multiple entities, and selecting which entities would require user intervention, as well as on the receiving end.

3. Why would CMS only make content available to state funded entities? Is this not anti-competitive?

4. This would make the handshake need to streamlined if you want to cover a lot of area.

5. If it is reasonable to ask the question "where will I find information on this patient" then wouldn't ELPD's need to post a directory of patients available on the system?

6. A good policy / standard may be to offer a 'minimum' timeframe as to when a sender should check certificate status. I.e. to the gentlemen's 'denial of service' nightmare possibility -- is the check performed daily / weekly / hourly and then cached?

7. Comment - I would like to understand (after / during call) the vision of relationships between the HISP, ELPD, the national Registrar and the 'other' registrars. If this is already in the deck; great. Thank you!

8. For a more high level rewording, my experience in the field is that user intervention in HIE needs to be as minimal as possible for adoption. Thank you.

9. Surescripts systemic inquiry is based on a KNOWN Identifier (i know, i wrote it) or set of parameters that will return results in certain threshold

10. Could limit use cases to just systemic inquiry where exact entity name/location combination is known for the purpose of a systemic inquiry